AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method of passivating the surface of a solid material, comprising irradiating the surface of a solid material with a pulsed laser beam having a pulse duration no longer than the atomic vibration period of the solid material.

2. (Original) The method of Claim 1, wherein said solid material is a semiconductor.

3. (Original) The method of Claim 1, wherein said solid material is a compound semiconductor.

4. (Original) The method of Claim 1, wherein said solid material is a III-V compound semiconductor.

5. (Original) The method of Claim 1, wherein said solid material is gallium arsenide.

6. (Original) The method of Claim 1, wherein said laser emits radiation in a wavelength range from about 2 micrometers to about 50 nanometers.

7. (Original) A method of passivating the surface of a solid material, comprising irradiating the surface of a solid material with a pulsed laser beam having a pulse duration not greater than about 10^{-11} seconds.

8. (Original) The method of any one of Claims 1-7, wherein said pulses have a duration not greater than about 10^{-12} seconds.

9. (Original) The method of Claim 8, wherein said pulses have a duration not greater than about 0.5×10^{-12} seconds.

10. (Original) The method of any one of Claims 1-7, wherein said pulses have an energy density in the range from about 0.01 mJ/cm^2 to about 100 mJ/cm^2.

11. (Previously Presented) An article comprising a solid material having a surface passivated by the method according to any of Claims 1-7.

Claims 12-16 (Cancelled)

17. (Currently Amended) An article comprising a solid semiconductor having a passive surface ~~bearing~~ including nanoclusters of constituent atoms of said semiconductor.

18. (Original) An article according to Claim 17, wherein said semiconductor is a compound semiconductor.

19. (Original) An article according to Claim 17, wherein said semiconductor is a III-V compound semiconductor.

20. (Original) An article according to Claim 17, wherein said semiconductor is gallium arsenide.

21. (New) An article comprising a solid semiconductor having a passive surface bearing nanoclusters of atoms,

wherein said semiconductor is a compound semiconductor.

22. (New) An article according to Claim 21, wherein said semiconductor is a III-V compound semiconductor.

23. (New) An article according to Claim 21, wherein said semiconductor is gallium arsenide.